Posted: November 18, 2026

NEW MEXICO TECH
SCIENCE • ENGINEERING • RESEARCH UNIVERSITY

POSITION ANNOUNCEMENT

TITLE: POSTDOCTORAL RESEARCH ASSOCIATE

DEPT: PETROLEUM ENGINEERING

REGULAR LIMITED TERM ☑ TEMP ☐ FULL TIME ☑ PART TIME ☐

STARTING RATE or SALARY RANGE $60,000 - $65,000
Employees being promoted to a higher classified position receive the minimum for the position or a pay rate adjustment of 8% whichever is greater.
All regular positions also entitle the employee to several benefits including health, dental, vision, life insurance, and retirement which is largely paid by New Mexico Tech for the employee and dependents.

INTERNAL POSTING THROUGH: 12/01/2026* CONSIDERATION WILL BE GIVEN FIRST TO TEMPORARY AND REGULAR TECH EMPLOYEES WHO APPLY WITHIN THE 7 DAY INTERNAL POSTING. APPLICATIONS RECEIVED AFTER THE 7 DAY POSTING MARGIN WILL BE CONSIDERED WITH OTHER OUTSIDE APPLICANTS.

JOB SUMMARY:

The Postdoctoral Research Associate will support the New Mexico Methane Emissions Reduction Program (MERP) at New Mexico Tech. The position focuses on methane emissions measurement and quantification, well integrity assessment, and technical evaluation of plugging and abandonment (P&A) operations for marginal conventional oil and gas wells in New Mexico. Responsibilities include conducting field measurements, analyzing methane leakage and well integrity data, evaluating potential leakage pathways, assessing P&A procedures and their effectiveness in reducing methane emissions, and preparing technical reports and research publications. The position will work closely with NMT researchers, the New Mexico Oil Conservation Division (NMOCD), oil and gas operators, and other project partners to support MERP objectives and ensure the successful implementation of the program.

JOB FUNCTIONS:

Conduct field investigations and methane emissions measurements at marginal conventional oil and gas wells. Quantify methane leakage rates, evaluate emission sources, and ensure accurate collection and documentation of field data.

Perform well integrity assessments, including evaluation of casing, cement, annular pressure, well construction, and potential methane migration pathways. Identify well integrity issues and recommend appropriate mitigation measures.

Evaluate plugging and abandonment (P&A) plans and operations. Review well conditions, assess proposed plugging procedures, and evaluate the effectiveness of P&A activities in preventing methane leakage and protecting the environment.

Conduct technical data analysis related to methane emissions, well integrity, and emission reduction technologies. Predict potential methane leakage rates based on bradenhead pressure measurements, reservoir characteristics, and well design and construction data.

Prepare technical reports, project deliverables, and presentations for MERP. Maintain accurate research records and support reporting requirements for NMT, NMOCD, and project sponsors.

REQUIRED QUALIFICATIONS:

Ph.D. or other doctorate level equivalent in Petroleum Engineering, Natural Gas Engineering, or a closely related engineering discipline, with expertise in well integrity, methane emissions, drilling and completions, reservoir engineering, or plugging and abandonment of oil and gas wells. Knowledge of petroleum engineering principles, including drilling, completions, well construction, and well integrity assessment. Knowledge of methane emissions, gas migration mechanisms, and potential leakage pathways in oil and gas wells. Ability to analyze well design, casing and cement conditions, bradenhead pressures, and reservoir data to evaluate well integrity and predict potential methane leakage rates. Strong analytical, problem-solving, and engineering research skills, including data analysis, modeling, and interpretation of field measurements. Knowledge of plugging and abandonment (P&A) procedures, cement plugging design, and well remediation techniques.

LIFTING REQUIREMENTS:

(f)requently, (o)ccasionally, or (s)eldom

0 - 15 pounds	F
15 - 30 pounds	O
30 - 50 pounds	O
50 - 100 pounds	S
100 + pounds	S

PHYSICAL DEMANDS:

Standing 20%	Sitting 40%	Walking	Pulling 5%
Pushing 5%	Lifting 10%	Stooping	Kneeling 5%
Crawling 5%	Climbing 5%	Reaching	Other 5%

Apply to: nmtjobapps@npe.nmt.edu